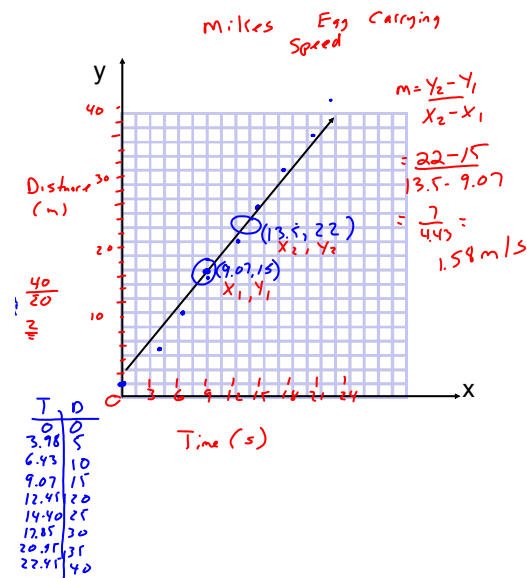


Distance/Time Graphs

- the speed/velocity of an object can be determined from a distance time graph
- time (the independent variable) is placed on the x axis
- distance (the dependent variable) is placed on the y axis
- points are plotted and a line of best fit is drawn
- the slope of the line is calculated and this shows the speed of the object in question

$$\text{Slope} = \frac{\text{rise}}{\text{run}} = \frac{\Delta y}{\Delta x} = \frac{y_2 - y_1}{x_2 - x_1} = \frac{\text{change in distance}}{\text{change in time}} = \frac{\Delta d}{\Delta t}$$



Step 1 - Create a consistent scale for each axis

Step 2 - Plot points - go over on the X then up on the Y

Step 3 - Draw in line of best fit (does not have to hit any points, does not have to start at origin)

Step 4 - Pick 2 points on your line of best fit and substitute them into the slope formula.

* the slope of the line will be the velocity of the object

